#2

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RAW SEQUENCE LISTING DATE: 03/20/2002 P.S
PATENT APPLICATION: **US/10/090,326** TIME: 11:40:12

Input Set : **A:\godfrey.st25.txt**
Output Set: **N:\CRF3\03202002\J090326.raw**

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     5 <110> APPLICANT: University of Pittsburgh
     7       Godfrey, Tony E.
     9       Luketich, James D.
    11       Raja, Siva
    13       Kelly, Lori A
    15       Finkelstein, Sydney D.
    19 <120> TITLE OF INVENTION: PCR Method
    23 <130> FILE REFERENCE: 010211
C--> 27 <140> CURRENT APPLICATION NUMBER: US/10/090,326
C--> 27 <141> CURRENT FILING DATE: 2002-03-04
    27 <150> PRIOR APPLICATION NUMBER: 60/273,277
    29 <151> PRIOR FILING DATE: 2001-03-02
    33 <160> NUMBER OF SEQ ID NOS: 25
    37 <170> SOFTWARE: PatentIn version 3.1
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    43 <211> LENGTH: 2975
    45 <212> TYPE: DNA
    47 <213> ORGANISM: Homo Sapiens
    51 <400> SEQUENCE: 1
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    54 tcctggaact caagctcttc tccacagagg aggacagagc agacagcaga gaccatggag    120
    56 tctccctcgg cccctcccca cagatggtgc atcccctggc agaggctcct gctcacagcc    180
    58 tcacttctaa ccttctggaa cccgcccacc actgccaagc tcactattga atccacgccg    240
    60 ttcaatgtcg cagaggggaa ggaggtgctt ctacttgtcc acaatctgcc ccagcatctt    300
    62 tttggctaca gctggtacaa aggtgaaaga gtggatggca accgtcaaat tataggatat    360
    64 gtaataggaa ctcaacaagc taccccaggg cccgcataca gtggtcgaga gataatatac    420
    66 cccaatgcat ccctgctgat ccagaacatc atccagaatg acacaggatt ctacacccta    480
    68 cacgtcataa agtcagatct tgtgaatgaa gaagcaactg gccagttccg ggtatacccg    540
    70 gagctgccca agccctccat ctccagcaac aactccaaac ccgtggagga caaggatgct    600
    72 gtggccttca cctgtgaacc tgagactcag gacgcaacct acctgtggtg ggtaaacaat    660
    74 cagagcctcc cggtcagtcc caggctgcag ctgtccaatg gcaacaggac cctcactcta    720
    76 ttcaatgtca caagaaatga cacagcaagc tacaaatgtg aaacccagaa cccagtgagt    780
    78 gccaggcgca gtgattcagt catcctgaat gtcctctatg gcccggatgc ccccaccatt    840
    80 tcccctctaa acacatctta cagatcaggg gaaaatctga acctctcctg ccacgcagcc    900
    82 tctaacccac ctgcacagta ctcttggttt gtcaatggga ctttccagca atccacccaa    960
    84 gagctcttta tccccaacat cactgtgaat aatagtggat cctatacgtg ccaagcccat   1020
    86 aactcagaca ctggcctcaa taggaccaca gtcacgacga tcacagtcta tgcagagcca   1080
    88 cccaaaccct tcatcaccag caacaactcc aaccccgtgg aggatgagga tgctgtagcc   1140
    90 ttaacctgtg aacctgagat tcagaacaca acctacctgt ggtgggtaaa taatcagagc   1200
    92 ctcccggtca gtcccaggct gcagctgtcc aatgacaaca ggaccctcac tctactcagt   1260
    94 gtcacaagga atgatgtagg accctatgag tgtggaatcc agaacaaatt aagtgttgac   1320
    96 cacagcgacc cagtcatcct gaatgtcctc tatggcccag acgaccccac catttccccc   1380
    98 tcatacacct attaccgtcc aggggtgaac ctcagcctct cctgccatgc agcctctaac   1440
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100 ccacctgcac agtattcttg gctgattgat gggaacatcc agcaacacac acaagagctc  1500
102 tttatctcca acatcactga gaagaacagc ggactctata cctgccaggc caataactca  1560
104 gccagtggcc acagcaggac tacagtcaag acaatcacag tctctgcgga gctgcccaag  1620
106 ccctccatct ccagcaacaa ctccaaaccc gtggaggaca aggatgctgt ggccttcacc  1680
108 tgtgaacctg aggctcagaa cacaacctac ctgtggtggg taaatggtca gagcctccca  1740
110 gtcagtccca ggctgcagct gtccaatggc aacaggaccc tcactctatt caatgtcaca  1800
112 agaaatgacg caagagccta tgtatgtgga atccagaact cagtgagtgc aaaccgcagt  1860
114 gacccagtca ccctggatgt cctctatggg ccggacaccc ccatcatttc ccccccagac  1920
116 tcgtcttacc tttcgggagc gaacctcaac ctctcctgcc actcggcctc taacccatcc  1980
118 ccgcagtatt cttggcgtat caatgggata ccgcagcaac acacacaagt tctctttatc  2040
120 gccaaaatca cgccaaataa taacgggacc tatgcctgtt ttgtctctaa cttggctact  2100
122 ggccgcaata attccatagt caagagcatc acagtctctg catctggaac ttctcctggt  2160
124 ctctcagctg gggccactgt cggcatcatg attggagtgc tggttggggt tgctctgata  2220
126 tagcagccct ggtgtagttt cttcatttca ggaagactga cagttgtttt gcttcttcct  2280
128 taaagcattt gcaacagcta cagtctaaaa ttgcttcttt accaaggata tttacagaaa  2340
130 agactctgac cagagatcga gaccatccta gccaacatcg tgaaacccca tctctactaa  2400
132 aaatacaaaa atgagctggg cttggtggcg cgcacctgta gtcccagtta ctcgggaggc  2460
134 tgaggcagga gaatcgcttg aacccgggag gtggagattg cagtgagccc agatcgcacc  2520
136 actgcactcc agtctggcaa cagagcaaga ctccatctca aaaagaaaag aaaagaagac  2580
138 tctgacctgt actcttgaat acaagtttct gataccactg cactgtctga gaatttccaa  2640
140 aactttaatg aactaactga cagcttcatg aaactgtcca ccaagatcaa gcagagaaaa  2700
142 taattaattt catgggacta aatgaactaa tgaggattgc tgattcttta aatgtcttgt  2760
144 ttcccagatt tcaggaaact ttttttcttt taagctatcc acagcttaca gcaatttgat  2820
146 aaaatatact tttgtgaaca aaaattgaga catttacatt ttctccctat gtggtcgctc  2880
148 cagacttggg aaactattca tgaatattta tattgtatgg taatatagtt attgcacaag  2940
150 ttcaataaaa atctgctctt tgtatgacag aatac                             2975
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157 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
165 <223> OTHER INFORMATION: B-gus RT primer
167 <400> SEQUENCE: 2
168 tttggttgtc tctgccgagt                                               20
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173 <211> LENGTH: 22
175 <212> TYPE: DNA
177 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
183 <223> OTHER INFORMATION: B-gus forward PCR primer
185 <400> SEQUENCE: 3
186 ctcatttgga attttgccga tt                                            22
189 <210> SEQ ID NO: 4
191 <211> LENGTH: 22
193 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
201 <223> OTHER INFORMATION: B-gus Reverse PCR primer
203 <400> SEQUENCE: 4
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Input Set : A:\godfrey.st25.txt
Output Set: N:\CRF3\03202002\J090326.raw

204 ccgagtgaag atccccttttt ta 22
207 <210> SEQ ID NO: 5
209 <211> LENGTH: 26
211 <212> TYPE: DNA
213 <213> ORGANISM: Artificial Sequence
217 <220> FEATURE:
219 <223> OTHER INFORMATION: B-gus taqman probe
221 <400> SEQUENCE: 5
222 tgaacagtca ccgacgagag tgctgg 26
225 <210> SEQ ID NO: 6
227 <211> LENGTH: 22
229 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
237 <223> OTHER INFORMATION: CEA Forward PCR primer
239 <400> SEQUENCE: 6
240 agacaatcac agtctctgcg ga 22
243 <210> SEQ ID NO: 7
245 <211> LENGTH: 20
247 <212> TYPE: DNA
249 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
255 <223> OTHER INFORMATION: CEA Reverse PCR Primer
257 <400> SEQUENCE: 7
258 atccttgtcc tccacgggtt 20
261 <210> SEQ ID NO: 8
263 <211> LENGTH: 26
265 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
273 <223> OTHER INFORMATION: CEA Taqman probe
275 <400> SEQUENCE: 8
276 caagccctcc atctccagca acaact 26
279 <210> SEQ ID NO: 9
281 <211> LENGTH: 16
283 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
291 <223> OTHER INFORMATION: CEA RT primer
293 <400> SEQUENCE: 9
294 gtgaaggcca cagcat 16
297 <210> SEQ ID NO: 10
299 <211> LENGTH: 22
301 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
309 <223> OTHER INFORMATION: 18SrRNS Taqman probe
311 <400> SEQUENCE: 10
312 tgctggcacc agacttgccc tc 22

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Input Set : A:\godfrey.st25.txt
Output Set: N:\CRF3\03202002\J090326.raw

315 <210> SEQ ID NO: 11
317 <211> LENGTH: 23
319 <212> TYPE: DNA
321 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
327 <223> OTHER INFORMATION: 18SrRNA forward PCR primer
329 <400> SEQUENCE: 11
330 ccctgtaatt ggaatgagtc cac 23
333 <210> SEQ ID NO: 12
335 <211> LENGTH: 18
337 <212> TYPE: DNA
339 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
345 <223> OTHER INFORMATION: 18SrRNA Reverse PCR primer
347 <400> SEQUENCE: 12
348 gctggaatta ccgcggct 18
351 <210> SEQ ID NO: 13
353 <211> LENGTH: 19
355 <212> TYPE: DNA
357 <213> ORGANISM: Artificial Sequence
361 <220> FEATURE:
363 <223> OTHER INFORMATION: 18SrRNA Forward - low temp -PCR primer
365 <400> SEQUENCE: 13
366 ccctgtaatt ggaatgagt 19
369 <210> SEQ ID NO: 14
371 <211> LENGTH: 15
373 <212> TYPE: DNA
375 <213> ORGANISM: Artificial Sequence
379 <220> FEATURE:
381 <223> OTHER INFORMATION: 18SrRNA Reverse - low temp PCR primer
383 <400> SEQUENCE: 14
384 gctggaatta ccgcg 15
387 <210> SEQ ID NO: 15
389 <211> LENGTH: 16
391 <212> TYPE: DNA
393 <213> ORGANISM: Artificial Sequence
397 <220> FEATURE:
399 <223> OTHER INFORMATION: B-gus RT primer
401 <400> SEQUENCE: 15
402 tggttgtctc tgccga 16
405 <210> SEQ ID NO: 16
407 <211> LENGTH: 18
409 <212> TYPE: DNA
411 <213> ORGANISM: Artificial Sequence
415 <220> FEATURE:
417 <223> OTHER INFORMATION: B-gus Forward PCR Primer - low temp
419 <400> SEQUENCE: 16
420 ctcatttgga attttgcc 18
423 <210> SEQ ID NO: 17

RAW SEQUENCE LISTING DATE: 03/20/2002
PATENT APPLICATION: US/10/090,326 TIME: 11:40:12

Input Set : A:\godfrey.st25.txt
Output Set: N:\CRF3\03202002\J090326.raw

425 <211> LENGTH: 17
427 <212> TYPE: DNA
429 <213> ORGANISM: Artificial Sequence
433 <220> FEATURE:
435 <223> OTHER INFORMATION: B-gus Reverse Primer - Low temp
437 <400> SEQUENCE: 17
438 cgagtgaaga tcccctt 17
441 <210> SEQ ID NO: 18
443 <211> LENGTH: 15
445 <212> TYPE: DNA
447 <213> ORGANISM: Artificial Sequence
451 <220> FEATURE:
453 <223> OTHER INFORMATION: CEA taqman probe
455 <220> FEATURE:
457 <221> NAME/KEY: misc_feature
459 <222> LOCATION: (15)..(15)
461 <223> OTHER INFORMATION: Uracil residue
465 <220> FEATURE:
467 <221> NAME/KEY: misc_feature
469 <222> LOCATION: (4)..(4)
471 <223> OTHER INFORMATION: Uracil residue
475 <400> SEQUENCE: 18
W--> **476 agcngcccaa gcccn 15**
479 <210> SEQ ID NO: 19
481 <211> LENGTH: 23
483 <212> TYPE: DNA
485 <213> ORGANISM: Artificial Sequence
489 <220> FEATURE:
491 <223> OTHER INFORMATION: Tyrosinase Forward PCR primer
493 <400> SEQUENCE: 19
494 acttactcag cccagcatca ttc 23
497 <210> SEQ ID NO: 20
499 <211> LENGTH: 23
501 <212> TYPE: DNA
503 <213> ORGANISM: Artificial Sequence
507 <220> FEATURE:
509 <223> OTHER INFORMATION: Tyrosinase Reverse PCR Primer
511 <400> SEQUENCE: 20
512 actgatggct gttgtactcc tcc 23
515 <210> SEQ ID NO: 21
517 <211> LENGTH: 29
519 <212> TYPE: DNA
521 <213> ORGANISM: Artificial Sequence
525 <220> FEATURE:
527 <223> OTHER INFORMATION: Tyrosinase Taqman probe
529 <400> SEQUENCE: 21
530 tctcctcttg gcagattgtc tgtagccga 29
533 <210> SEQ ID NO: 22
535 <211> LENGTH: 17

→ Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 03/20/2002
PATENT APPLICATION: **US/10/090,326** TIME: 11:40:13

Input Set : **A:\godfrey.st25.txt**
Output Set: **N:\CRF3\03202002\J090326.raw**

L:27 M:270 C: Current Application Number differs, Replaced Current Application No
L:27 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25